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State of New Jersey
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January 7, 2022

To the Service List:

Re: IN THE MATTER OF THE OPENING OF OFFSHORE WIND RENEWABLE ENERGY CERTIFICATE (OREC) APPLICATION WINDOW FOR 1,200 TO 2,400 MEGAWATTS OF OFFSHORE WIND CAPACITY IN FURTHERANCE OF EXECUTIVE ORDER NO. 8 AND EXECUTIVE ORDER NO. 92.
DOCKET NO. QO20080555

IN THE MATTER OF THE BOARD OF PUBLIC UTILITIES OFFSHORE WIND SOLICITATION 2 FOR 1,200 TO 2,400 MW – ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC.
DOCKET NO. QO21050824

Agenda Date: June 30, 2021 – Agenda Item: 8A-1

Please be advised that the Board of Public Utilities is redistributing the issued Order for the above-referenced agenda item that was approved by the Board of Public Utilities ("Board") at the June 30, 2021 Board agenda meeting to correct a typographical error.

On page fifteen, Footnote 45 incorrectly stated the federal Investment Tax Credit as 18%, when in fact, the federal Investment Tax Credit for the project is 30%.

Consequently, the redistributed Order now correctly states for Footnote 45:

These OREC values include the 30% federal Investment Tax Credit

This is the only change to the issued Order, which will be redistributed to the parties of record and the attached service list. The correct value of 30% was used during the analysis cited by the Order.

Sincerely,

A handwritten signature in blue ink that reads "Aida Camacho-Welch".

Aida Camacho-Welch
Secretary of the Board

/ac

**IN THE MATTER OF THE OPENING OF OFFSHORE WIND RENEWABLE ENERGY
 CERTIFICATE (OREC) APPLICATION WINDOW FOR 1,200 TO 2,400 MEGAWATTS OF
 OFFSHORE WIND CAPACITY IN FURTHERANCE OF EXECUTIVE ORDER NO. 8 AND
 EXECUTIVE ORDER NO. 92; and**

**IN THE MATTER OF THE BOARD OF PUBLIC UTILITIES OFFSHORE WIND
 SOLICITATION 2 FOR 1,200 TO 2,400 MW – ATLANTIC SHORES OFFSHORE WIND
 PROJECT 1, LLC**

BPU DOCKET NOS. QO20080555 and QO21050824

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CLEAN ENERGY

IN THE MATTER OF THE OPENING OF)	ORDER
OFFSHORE WIND RENEWABLE ENERGY)	
CERTIFICATE (OREC) APPLICATION WINDOW)	
FOR 1,200 TO 2,400 MEGAWATTS OF)	
OFFSHORE WIND CAPACITY IN)	
FURTHERANCE OF EXECUTIVE ORDER NO. 8)	
AND EXECUTIVE ORDER NO. 92)	
)	DOCKET NO. QO20080555
IN THE MATTER OF THE BOARD OF PUBLIC)	
UTILITIES OFFSHORE WIND SOLICITATION 2)	
FOR 1,200 TO 2,400 MW – ATLANTIC SHORES)	
OFFSHORE WIND PROJECT 1, LLC)	DOCKET NO. QO21050824

Parties of Record:

Stefanie A. Brand, Esq., Director, New Jersey Division of Rate Counsel
Joris Veldhoven, Atlantic Shores Offshore Wind Project 1, LLC

BY THE BOARD:

The New Jersey Board of Public Utilities (“Board” or “BPU”) considers the responses to its second offshore wind (“OSW”) solicitation (“Second Solicitation”) for a target of 1,200-2,400 megawatts (“MW”) of OSW capacity in furtherance of Governor Phil Murphy’s 2018 Executive Order No. 8 (“EO 8”), and expanded in 2019 by Executive Order No. 92 (“EO 92”). EO 92 requires the Board to fully implement the Offshore Wind Economic Development Act of 2010 (“OWEDA”) so New Jersey may achieve 7,500 MW of OSW by 2035.

To that end, by this Order, the Board herein approves the 1,509.6 MW Project C proposed by Atlantic Shores Offshore Wind Project 1, LLC (“Atlantic Shores” or “ASOW”) as a Qualified Offshore Wind Project to receive OSW Renewable Energy Certificates (“ORECs”), as defined in OWEDA (“Atlantic Shores Project” or “ASOW Project”). Although not addressed herein, today the Board also separately approves another project submitted in response to the Second Solicitation in Docket Numbers QO20080555 and QO21050825 (“Docket No. QO21050825”).

Today’s action reinforces New Jersey’s leadership in the fight against the impacts of climate change. Climate change is an imminent threat to New Jersey’s economy, and the health, safety,

and welfare of New Jersey's residents.¹ The effects of climate change are felt throughout New Jersey via the threat of flooding, the number and severity of storms, and the environmental effects from the increase in average-yearly temperatures. Simultaneously, fossil-fuel emissions impact New Jersey's air quality, threatening residents' respiratory health and quality of life.

Governor Phil Murphy set forth an ambitious goal of reaching 100 percent clean energy by 2050. Energy systems and climate change are inextricably linked. Within his first few weeks in office, on January 31, 2018, Governor Murphy signed EO 8 making New Jersey's leadership in OSW a centerpiece of the Governor's environmental and energy agenda. EO 8 reinvigorates the implementation of OWEDA, sets a bold vision for a clean-energy economy, and supports a large-scale wind market and in-state supply chain that utilizes a trained New Jersey workforce for construction, installation, interconnection, and operations and maintenance.² On November 19, 2019, Governor Murphy signed EO 92, which increased the State's OSW energy goal from 3,500 MW by 2030 to 7,500 MW by 2035.³ Governor Murphy found that expanding the OSW goal will ensure that New Jersey can "meet the State's goals of 50 percent renewable energy by 2030 and 100 percent clean energy by 2050, in addition to creating a significant number of good-paying jobs."⁴ Additionally, the 2019 Energy Master Plan ("2019 EMP") stressed the critical need for action to address the grave threat of climate change, providing a roadmap to achieve 100 percent clean energy by 2050, and an 80 percent reduction of greenhouse gas emissions from 2006 levels, as provided in the Global Warming Response Act (P.L. 2007, c.112, N.J.S.A. 26:2C-37 to 44).⁵

The Board's decisions, both in the first solicitation for OSW ("2018/2019 Solicitation") and in this Second Solicitation, yield enormous economic and environmental benefits for New Jersey. Nevertheless, the Board remains cognizant of the potential impacts on New Jersey ratepayers, and therefore explicitly weighed such ratepayer impacts in gauging the value of the benefits attributable to OSW in this Second Solicitation and in the Board's decision today. The Board's approval of the Atlantic Shores Project is fully responsive to economic concerns because it combines a highly competitive pricing structure with substantial economic development guarantees, including the commitment to bring additional manufacturing jobs to New Jersey as part of ASOW's partnership with MHI Vestas to bring nacelle assembly and manufacturing jobs to the State. It simultaneously acknowledges that today's critical step in combating climate change is being taken in partnership with workers and businesses across New Jersey, and it works to ensure just and reasonable rates. The Board's approval of the Atlantic Shores Project brings an estimated 18,550 direct and 40,744 total (direct, indirect, and induced) job-years (in Full-Time Equivalent years⁶ or "FTE-years") to New Jersey from the date of the award through the 20-year OREC term, according to Atlantic Shores.⁷ By the Board's decision today, New Jersey makes a strong case that key parts of the OSW supply chain should be located here, for both current and future projects, inside and outside the State. These community and employment benefits will accrue across the State and help offset ratepayer impacts.

¹ See generally, New Jersey Department of Environmental Protection, 2020 New Jersey Scientific Report on Climate Change (June 30, 2020), available at <https://www.nj.gov/dep/climatechange/docs/nj-scientific-report-2020.pdf>

² Exec. Order N. 8 at ¶¶ 1-2 (2018).

³ Exec. Order N. 92 at ¶ 1 (2019).

⁴ Id. at 3.

⁵ New Jersey Board of Public Utilities, 2019 Energy Master Plan: Pathway to 2050 at 11 ("2019 EMP"), available at https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf

⁶ N.J.A.C. 14:8-6.5(a)(11)(xiii) defines an FTE-year as 1,820 work hours.

⁷ Atlantic Shores Application at Table 8-3.

The Board also remains cognizant of its charge to protect New Jersey's natural resources and significant cultural and tourism economies. New Jersey enjoys a geographic location and ocean wind profile well-suited to the development of a robust OSW program. The work of harnessing the ocean wind must be done through responsibly developed and sited wind farms. The Board remains committed to ensuring that natural resources, including fish, marine mammals, birds, and other wildlife, are protected throughout the development and operation of current and future wind projects. Through this Second Solicitation award, we will have the resources to collect and share valuable data to inform future development, and to protect the natural resources that comprise a critical part of New Jersey's rich tapestry of biological diversity.

Through initiatives such as the Atlantic Shores Project, New Jersey can advance visionary policy and innovative programs while continuing to improve the quality of energy service and mitigating costs. We must do this while ensuring that energy is affordable and accessible for all residents of the State. Stepping boldly into a new industry, New Jersey, once again, leads the way in protecting the environment while growing the economy. Today's action is another step on the path in New Jersey's leadership in the fight against climate change for the benefit of current and future residents.

I. BACKGROUND AND PROCEDURAL HISTORY

In response to OWEDA, EO 8, and EO 92, the Board issued two solicitations for qualified OSW projects. By way of reference, "Applicant" refers to the proposing entity; "Application" refers to the documents submitted by an Applicant; "Project" refers to a distinct project size and associated infrastructure combination; and "Bid" refers to the project-specific price.

On September 18, 2018, the Board began the 2018/2019 Solicitation by opening an application window and inviting all interested parties to submit OSW Applications by December 28, 2018.⁸ The Board found that the proposed OREC Funding Mechanism Rules provided the necessary regulatory framework to enable developers to seek project financing, which lowered the financial risk to the developers, and thus, enabled a lower price for ratepayers.⁹

At the close of the application window on December 28, 2018, the Board received Applications from three OSW developers: Ocean Wind, LLC; Atlantic Shores Offshore Wind Project 1, LLC; and Equinor Wind US, LLC. The Board noted that the "Applications reflected a highly competitive response regarding OREC prices, local content economic benefits, environmental benefits, ratepayer impacts and other factors."¹⁰

After thorough review, on June 21, 2019, the Board found that the Ocean Wind 1,100 MW project was the most beneficial to New Jersey and was therefore selected to receive ORECs.¹¹

⁸ In the Matter of the Opening of OREC Application Window for 1,100 Megawatts of Offshore Wind Capacity in Furtherance of Executive Order No. 8, BPU Docket No. QO18080851 (Sept. 18, 2018).

⁹ In the Matter of the Board of Public Utilities Offshore Wind Solicitation for 1,100 MW—Evaluation of the Offshore Wind Applications, BPU Docket No. QO 18121289 (June 21, 2019) ("2019 Board Order").

¹⁰ Id.

¹¹ Id.

II. SECOND SOLICITATION REQUIREMENTS AND GOALS

On September 9, 2020, the Board opened the Second Solicitation window seeking to secure ORECs targeting 1,200 MW to 2,400 MW of OSW capacity.¹² Interested OSW developers were encouraged to submit an Application to the Board to build an OSW facility in areas leased from the Federal Bureau of Ocean Energy Management (“BOEM”) in federal waters off the coast of New Jersey. The Board also released the Second Solicitation Guidance Document (“Solicitation Guidelines”) providing a consolidated place for all Application requirements, guidance on the preparation of the Application, standards and assumptions to be used in preparing an Application, schedule, and key dates.¹³

The Board’s action in the Second Solicitation process is to consider whether to award State incentives to proposed OSW projects. Other federal and State authorities, including BOEM and the New Jersey Department of Environmental Protection (“NJDEP” or “DEP”), among others, must separately provide relevant permits and authorization to proceed. An OREC award by the Board is contingent upon the developer obtaining all required local, State, and/or federal permits and/or approvals. The Board’s action here is one crucial step in facilitating the development of additional OSW off the coast of New Jersey.

Board Staff diligently obtained input from DEP, the New Jersey Division of Rate Counsel (“Rate Counsel”) and the Board’s independent evaluator, Levitan & Associates (“Levitan” or “LAI”), to make a recommendation that is in the best interest of the State of New Jersey.

The requirements and goals that guided the Board in this Second Solicitation are as follows:

OWEDA

On August 19, 2010, OWEDA was signed into law, amending and supplementing the Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49 *et seq.* OWEDA established, among other things, OSW as a Class I Resource under the Renewable Energy Portfolio Standards (“RPS”), and directed the Board to establish an OREC program requiring a percentage of the State’s electric load to be supplied by OSW from qualified OSW projects. A qualified OSW project is defined as, “...a wind turbine electric generation facility in the Atlantic Ocean and connected to the electric transmission system in this State, and includes the associated transmission-related interconnection facilities and equipment, and approved by the Board pursuant to [N.J.S.A. 48:3-87.1].”¹⁴

OWEDA defines an OREC as representing the environmental attributes of one megawatt hour (“MWh”) of electric generation from an OSW project.¹⁵ For each MWh delivered to the transmission grid, an OSW project will be credited with one OREC.

¹² In the matter of the Opening of the Offshore Wind Renewable Energy Certificate (OREC) Application Window for 1,200 to 2,400 Megawatts of Offshore Wind Capacity in Furtherance of Executive Order No. 8 and Executive Order No. 92, BPU Docket No. QO20080555 (Sept. 9, 2020) (“September 2020 Order”).

¹³ New Jersey Board of Public Utilities, New Jersey Offshore Wind Solicitation #2 – Solicitation Guidance Document (Sept. 10, 2020), available at <https://njoffshorewind.com/solicitation-documents/Final-Solicitation-Guidance-Documents-with-attachments.pdf>

¹⁴ N.J.S.A. 48:3-51.

¹⁵ N.J.S.A. 48:3-51; N.J.A.C. 14:8-6.1.

OWEDA also established the Application requirements for OSW projects to be considered eligible to receive ORECs. These requirements are referenced in the Board-approved Solicitation Guidelines that provide guidance regarding the format, calculations, and assumptions to be used in preparing an Application.¹⁶ OWEDA provides key factors the Board should consider in addition to the OREC price, including the economic impacts of projects, environmental benefits including greenhouse gas reductions and mitigation of environmental impacts, ratepayer impacts, economic guarantees, and factors contributing to the likelihood of success of the project.¹⁷ These factors were distilled into six evaluation criteria, which reflect the goals of OWEDA and New Jersey's OSW policy, and are specified in the Solicitation Guidelines.

Ultimately, OWEDA mandates that all qualified OSW projects deliver a net economic and environmental benefit to the State of New Jersey. A cost-benefit analysis of the proposed project must demonstrate that this threshold is met based upon both economic and environmental benefits.¹⁸

OWEDA also makes clear that no OREC shall be paid until electricity is produced by the project, and when such payment is made, it shall be based on the actual electric output of the project that is delivered into the State's transmission system.¹⁹ The OSW project must absorb any risk as ratepayers and the State shall be held harmless for any delays or cost overruns associated with a project.

Following the passage of OWEDA, the Board adopted rules that provide an Application process and evaluation framework for OSW facilities.²⁰ The rules include: 1) establishing OSW as a Class I resource under the renewable portfolio standards; 2) Application requirements; 3) the ability for the Board to designate the Application windows; and 4) the ability for the Board to impose appropriate conditions upon any OREC grant; and 5) ratepayer protections. The rules also detail how the Board will review any Application and ultimately approve, conditionally approve, or deny an Application.

Executive Orders No. 8 and No. 92

On January 21, 2018, Governor Phil Murphy signed EO 8, which set a goal of 3,500 MW of OSW capacity by 2030, and directed the Board, and other implementing State Agencies, to "take all necessary action" to fully implement OWEDA.²¹ EO 8 set an aggressive OSW energy production goal recognizing that "portions of the OSW supply chain being located in New Jersey, including manufacturing, assembly and construction of the component parts of the OSW turbines, will contribute to a stronger New Jersey economy."²²

EO 8 specifically directed the Board to begin the rulemaking process to establish the OREC Funding Mechanism to provide the necessary regulations to determine how suppliers will meet

¹⁶ Supra n. 2.

¹⁷ N.J.S.A. 48:3-87.1(b).

¹⁸ N.J.S.A. 48:3-87.1 (b)(1)(b).

¹⁹ N.J.S.A. 48:3-87.1 (c)(1).

²⁰ N.J.A.C. 14:8-6.1 et seq.

²¹ Exec. Order N. 8 at ¶ 1 (2018).

²² Id. at ¶ 9 (2018).

their RPS obligations, and how OSW developers will receive payments for ORECs.²³ EO 8 directed the Board to proceed with a solicitation of 1,100 MW of OSW capacity as a first step in meeting the 3,500 MW goal, and further called upon the Board to implement OWEDA's OREC program.

In response, on February 28, 2018, the Board issued an Order directing Board Staff to take specific actions to implement EO 8, including preparing an initial 1,100 MW solicitation of OSW, and initiating a rulemaking proceeding for the OREC Funding Mechanism Rules.²⁴

On November 19, 2019, Governor Murphy signed EO 92 which directed the Board, DEP, and other state agencies to "promote and realize the development of wind energy off the coast of New Jersey to meet a goal of 7,500 megawatts of offshore wind energy generation by the year 2035."²⁵

Clean Energy Act

On May 23, 2018, Governor Murphy signed the Clean Energy Act ("CEA") into law (P.L. 2018 c. 17). Among other things, the CEA amended N.J.S.A. 48:3-87 to increase OWEDA's initial 1,100 MW requirement to "at least" 3,500 MW of generation from OSW projects.²⁶

OREC Funding Mechanism

After a notice and comment period, the Board adopted new rules and amendments to N.J.A.C. 14:8-6.6 regarding the OREC funding mechanism ("OREC Funding Mechanism Rules"). The OREC Funding Mechanism Rules set forth the method and process by which ratepayers will fund an OSW project in accordance with all applicable laws, rules, Executive Orders, and Board Orders, and provided the method by which the revenue earned from an OSW project will be refunded and delivered to ratepayers. Each Basic Generation Service Supplier ("BGS") and Third Party Supplier ("TPS") that sells electricity to retail customers in New Jersey must ensure that the electricity includes, at least, the minimum percentage of OSW energy required for that energy year, as set by the Board, following the approval of a qualified OSW project.²⁷ The OREC Funding Mechanism Rules describe the method by which suppliers will meet this obligation, and how funds from the sale of ORECs will flow to the qualified OSW projects.

The OREC Funding Mechanism Rules also mandate that the OREC price reflects the total capital and operating costs for an OSW project, offset by any State or Federal tax or production credits, and any other subsidies or grants, as approved by the Board.²⁸ The OREC Funding Mechanism Rules further provide that once the Board approves a qualified OSW project it shall be funded through an OREC as set forth in the OREC Funding Mechanism Rules, and in accordance with the following principles:²⁹

1. A Board Order that approves a qualified OSW project shall be binding and enforceable on all parties referenced therein;

²³ Exec. Order No. 8 at ¶ 6.

²⁴ In the Matter of the Implementation of Executive Order No.8 on Offshore Wind and the Initiation of a Rulemaking Proceeding on ORECs, BPU Docket No. QO18020151 (Feb. 28, 2018).

²⁵ Exec. Order No. 92 at ¶ 2 (2019).

²⁶ N.J.S.A. 48:3-87(d)(4).

²⁷ N.J.A.C. 14:8-6.2.

²⁸ N.J.A.C. 14:8-6.5(a)(12)(vii).

²⁹ N.J.A.C. 14:8-6.6(a).

2. The total annual OREC allowance for a qualified OSW project, once approved by the Board, shall not be subject to reduction or modification during the term of each OREC order unless otherwise agreed to by both parties;
3. A developer of a qualified OSW project shall be eligible to receive the project's approved OREC rates and payments for 20-years subject to the terms and conditions of the Board Order.
4. Qualified OSW projects shall only be entitled to OREC revenues for MWh actually generated over the 20-year term delineated in the Board Order, and shall have no recourse against the Board, the suppliers, the Electric Distribution Companies ("EDCs"), the OREC Administrator, or the ratepayers for any additional payments;
5. ORECs from a qualified OSW project shall have a qualification life of three years, including the year it was generated and the following two years, thus, allowing ORECs to be banked for future use; and
6. All revenues generated by an OSW project shall be returned to ratepayers.

2019 Energy Master Plan

Governor Murphy released the 2019 EMP that prioritized the development of OSW and estimated that OSW will supply 23% of the State's clean energy by 2050. The 2019 EMP touts that the State's OSW industry is "expected to produce roughly 25,000 full-time equivalent jobs through 2035 to build and operate the infrastructure."³⁰

The 2019 EMP sets forth several key goals and directives related to OSW development:

1. Develop OSW generation. The 2019 EMP calls upon the Board to develop a consistent and transparent solicitation schedule through 2035 that supports a steady, long-term project pipeline. The Board is also tasked with coordinating with PJM and determining how much of New Jersey's energy demand should be met with OSW through 2050;
2. Develop the OSW supply chain. New Jersey is in a prime position to capture supply chain jobs because of its location and current labor market profiles. Given New Jersey's geography and coastline, the 2019 EMP notes that the State is well-positioned to develop OSW jobs for a supply chain that could service the Mid-Atlantic OSW industry;
3. Develop job training programs to support the OSW industry and supply chain development; and
4. Develop port infrastructure and participate in inter-regional collaboration to support the OSW industry. There are three types of port facilities necessary for the OSW industry: manufacturing, staging and marshalling, and operations and maintenance. The 2019 EMP notes that, while all three types are important, special attention should be given early on to manufacturing to ensure New Jersey becomes an anchor of the supply chain.

³⁰ 2019 EMP at 100.

Offshore Wind Strategic Plan

Governor Murphy's EO 8 called upon the Board, with assistance from the DEP and input from key stakeholders, to develop an OSW Strategic Plan ("Strategic Plan"). Released in July 2020 for public comment, and approved by the Board in September 2020, the Strategic Plan provides a blueprint for the State to achieve Governor Murphy's 7,500 MW of OSW by 2035.³¹ A key focus of the Strategic Plan is the development of OSW in a cost-effective manner, while developing the necessary infrastructure in a way that protects New Jersey's natural resources.

Wind Innovation and New Development Institute

Charged with developing and implementing a plan to create a regional hub for the State's burgeoning OSW industry, the New Jersey's Wind Innovation and New Development Institute ("WIND Institute") aims to create a centralized place for education, research, innovation, and workforce training, while ensuring coordination across the pertinent state agencies.

III. EVALUATION OF APPLICATIONS

On March 27, 2020, a contract between the Board and LAI was approved for OSW consulting services to assist Board Staff in the evaluation of the Second Solicitation Applications.³²

Eligibility for Award

To be eligible to win an award for the sale of ORECs, an Applicant must:³³

- Submit an Application found to be administratively complete;
- Submit an OREC Purchase Price offer that meets all requirements of OWEDA and N.J.A.C. 14:8-et seq.;
- Have a reasonable ratepayer impact;
- Demonstrate that the Project is viable and is likely to begin commercial operation as proposed;
- Submit an Application that is consistent with the New Jersey Energy Master Plan, adopted pursuant to section 12 of P.L.1977, c.146 (C.52:27F-14), in effect at the time the Board is considering the Application;
- Demonstrate positive economic and environmental net benefits to the State through a benefit-cost analysis;
- Demonstrate that the financing mechanism is based upon the actual electrical output of the project, fairly balances the risks and rewards of the project between ratepayers and

³¹ New Jersey Board of Public Utilities, New Jersey Offshore Wind Strategic Plan (Sept. 2020), available at https://www.nj.gov/bpu/pdf/Draft_NJ_OWSP_7-13-20_highres.pdf

³² In the Matter of Clean Energy Request for Qualifications for Offshore Wind Consulting Services, BPU Docket No. No. QO19101327 (Mar. 27, 2020) (adopted in Executive Session).

³³ Solicitation Guidelines at 30.

shareholders, and ensures that any costs of non-performance, in either the construction or operational phase of the project, shall be borne by shareholders of the Applicant; and

- Demonstrate financial integrity and sufficient access to capital to allow for a reasonable expectation of completion of construction of the project.

Evaluation Criteria

The Board must evaluate Applications against multiple factors set forth in OWEDA and the rules at N.J.A.C 14:8-6 et seq. These factors were distilled into six evaluation criteria defined in the Solicitation Guidelines.

The overarching goals of New Jersey's OSW policy are:³⁴

- Contributing to a stronger New Jersey economy by anchoring an offshore wind supply chain in the State;
- Combating global climate change to protect New Jersey and also to protect New Jersey's natural resources;
- Providing added reliability for the transmission network and transmission rate relief for ratepayers; and
- Achieving all of this at the lowest reasonable cost and risk to New Jersey ratepayers.

The six evaluation criteria are:³⁵

- OREC Purchase Price – This includes meeting the requirement for a fixed pay-for-performance price, as well as plans for maximizing revenue from the sales of energy, capacity, and ancillary services, which are credited back to ratepayers.
- Economic impact – This includes, among other metrics, the number of jobs created, increase in wages, taxes, receipts, in-state expenditures, and state gross product for each MW of capacity constructed, including development of the New Jersey offshore wind supply chain and utilization of port and existing supply chain facilities.
- Ratepayer impact – This includes the average increase in residential and industrial customer bills, including consideration of the timing of any rate impacts.
- Environmental and fisheries impact – This includes the net reductions of pollutants for each MWh generated, and the feasibility and strength of the Applicant's plan to avoid, minimize, or mitigate onshore and offshore impacts created by construction and operation. This evaluation criterion also includes consideration of project design elements that will facilitate future expansion of OSW delivery capability and avoid, minimize, or mitigate future incremental environmental and fisheries impacts.

³⁴ Id. at 31.

³⁵ Id. at 30.

- The strength of guarantees for economic impact – This includes all measures proposed to assure that claimed in-state expenditures and jobs commitments will materialize, as well as the consequences for shortfalls.
- Likelihood of successful commercial operation – This includes developer and key employee experience, feasibility of Project timelines, permitting plans, equipment and labor supply plans, feasibility of port facilities and marshalling plans, and the current progress displayed in achieving these plans.

Ranking and weighting of the above criteria reflected the overarching goals of New Jersey's OSW policy. To that end, the following weighting was applied in the evaluation:³⁶

Criterion	Weight
OREC Purchase Price and Ratepayer Impacts	50%
Economic Impacts and Strength of Guarantees for Economic Impacts	20%
Environmental and Fisheries Impacts	20%
Likelihood of Successful Commercial Operation	10%

Under N.J.S.A. 48:3-87.1(b)(2)(b), the Board must also consider any other elements it deems appropriate in conjunction with the Application. Board Staff finds the following additional elements appropriate for consideration, consolidated in the Discussion Section of this Order within the six evaluation criteria defined above:

- Diversification of the risk of successful project completion;
- Providing economic benefits to more communities around different ports and manufacturing facilities, thereby strengthening New Jersey's likelihood of success as a regional manufacturing center supporting the nascent offshore wind industry along the Atlantic seaboard, including:
 - A mix of local industries, technologies, and labor force categories
 - A mix of ports infrastructure development and uses
 - Multiple locations of port, manufacturing, and operational activities;
- Diversification in all tiers of the supply chain, including diversification in the type and location of material and equipment suppliers, and support services;
- Incorporation of alternative construction methods and/or technology selection, including
 - Foundation type
 - Wind Turbine Generator ("WTG") model performance
 - Spatially distinct BOEM lease areas and different points of interconnection ("POIs"); and
- Heightening the prospect of more robust competition in subsequent procurement rounds through diversity in selected Applicants.

³⁶ The OREC Purchase Price and Ratepayer Impacts criteria, and the Economic Impacts and Strength of Guarantees for Economic Impacts criteria were combined for the purpose of the ranking and weighting of the six criteria.

Portfolio Analysis

In addition to the evaluation of individual Projects, Board Staff and LAI conducted a portfolio analysis to test the potential price, and economic benefits and costs, attributable to the selection of a Project from each Applicant. A portfolio solution with two awardees has the potential to position New Jersey favorably to achieve greater manufacturing capability to support both New Jersey's and neighboring states' offshore wind procurement goals, while conferring valuable employment and economic benefits. By the Board's action today in this Docket and in Docket No. QO21050825, the Board determines that a portfolio solution that includes a Project from each Applicant furthers New Jersey's OSW goals and is in the best interest of the State and its residents.

Administrative Completeness Review

After examining the above criteria and eligibility requirements, the Board may approve, conditionally approve, or deny an Application within 180 days of receipt of an administratively complete Application.³⁷

In accordance with N.J.A.C. 14:8-6.4, an administrative completeness review of each Application was conducted. Deficiencies were found in both Applications, and the Applicants were notified of the deficiencies on January 8, 2021. Both Applicants cured the deficiencies on January 15, 2021, and both Applications were deemed to be administratively complete on that date.

After the determination of administrative completeness, a detailed evaluation of each Application began.

Coordination with Other State Agencies

Board Staff and LAI worked closely throughout the evaluation process with other New Jersey State agencies, as described below:

- *New Jersey Department of Environmental Protection*

Board Staff engaged with DEP throughout the Solicitation window. Applicants were directed to meet with DEP for a pre-permit meeting prior to submitting their Applications; the DEP Office of Permit Coordination participated in the Bidders Technical Conference; and DEP contact information and permitting guidance documents were included on the Solicitation Website at NJOffshorewind.com to facilitate coordination with DEP. DEP further assisted in the evaluation of each Applicant's permitting plan, environmental protection plan, fisheries protection plan, and interconnection plan in order to ensure consistency with the Solicitation requirements and relevant environmental regulations. DEP provided its findings in a memo to Board Staff on May 7, 2021, which was reviewed and considered by Board Staff Board. In general, DEP found that Atlantic Shores made a good effort in characterizing the existing environment, permit planning, communicating with stakeholders, and collaborating with local and regional experts. There were some concerns about how environmental and fisheries impacts will be assessed, but that is an active area of research, and not the sole responsibility of Atlantic Shores, who demonstrated a commitment to advancing this research.

³⁷ N.J.S.A. 48:3-87.1(d).

- New Jersey Division of the Rate Counsel

Board Staff engaged the New Jersey Division of the Rate Counsel (“Rate Counsel”) to solicit feedback on the potential ratepayer impacts associated with an OREC award(s) consistent with OWEDA and the governing rules at N.J.A.C 14:8-6 et seq. Rate Counsel provided its feedback on May 19, 2021, which was reviewed and considered by Board Staff. Rate Counsel noted that the Projects produced a positive cost-benefit analysis. Rate Counsel expressed concern that if an award was made to the incumbent OSW developer, it would result in market concentration in the New Jersey OSW market that could have potentially negative impacts on future OSW solicitations. Rate Counsel also expressed that concentration of awards with one developer could have negative longer-run supply chain and economic development ramifications for New Jersey.

Information Relied Upon in Evaluation of Applications³⁸

Board Staff relied upon the following information to form its own opinions and recommendations to the Board regarding this matter: ³⁹

- The Application submitted at the close of the solicitation window on December 10, 2020;
- Answers to clarifying questions (“CQs”) posed by LAI on January 19, 2021. Responses were received on February 1, 2021 as requested. The Applicant was notified that its responses would become part of the record and that the Board would rely on them in its further review of the Application;
- Answers to a second round of CQs posed by LAI on February 19, 2021. Responses were received on March 3, 2021, as requested. The Applicant was notified that its responses would become part of the record, and that the Board would rely on them in its further review of the Application;
- Answers to a third round of CQs posed by LAI on June 16, 2021. Responses were received on June 21, 2021, as requested. The Applicant was notified that its responses would become part of the record, and that the Board would rely on them in its further review of the Application;
- Answers to a fourth round of CQs posed by LAI on June 22, 2021. Responses were received on June 24, 2021, as requested. The Applicant was notified that its responses would become part of the record, and that the Board would rely on them in its further review of the Application;
- Statements made on the record by the Applicant at an interview held on March 9, 2021. The Applicant was interviewed by Board Staff, LAI, and representatives of DEP to review their Application and ask questions prepared by LAI in consultation with Board Staff and DEP. The interview was documented by a court reporter, and the Applicant was notified

³⁸ Publicly available versions of the Application, CQ Responses, interview transcript, BAFO, and LAI Report will be available through the Public Document Search Tool located at <https://publicaccess.bpu.state.nj.us/> on or after July 7, 2021.

³⁹ This Order, the Application, all CQ responses, the interview, the supplemental information and the BAFO submitted by ASOW form the obligations and duties between the Board and ASOW for the ASOW Project. ASOW is bound by all statements and representations made in their submittals, whether or not specifically discussed in this Order.

that its responses would become part of the record, and the Board would rely on them in its further review of the Application;

- Information that the Applicant considered supplemental to its responses during the interview, which was requested at the interview. Supplemental information was submitted on March 11, 2021 as requested. The Applicant was notified that its supplemental information would become part of the record, and the Board would rely on it in its further review of the Application;
- A Best and Final Offer (“BAFO”) was requested at the interview. The BAFO was received on April 1, 2021. The Applicant was notified that its BAFO would become part of the record, and the Board would rely on it in its further review of the Application;
- The DEP memorandum to Board Staff, *NJDEP Review of 2021 OREC Applications*, dated May 7, 2021. In addition to attending the interviews, DEP reviewed the portions of each Application (including relevant appendices), CQ responses, information provided to supplement interview responses, and BAFO that provided information on the environmental and fisheries impacts, and permitting plans and status of proposed projects;
- The memorandum from Rate Counsel submitted to Board Staff on May 19, 2021 on ratepayer impacts. Rate Counsel reviewed portions of each Application (including relevant appendices), CQ responses, and BAFO that provided information on the ratepayer impacts of proposed projects; and
- The report prepared by LAI and submitted to Board Staff entitled, *Evaluation Report New Jersey Offshore Wind Solicitation #2*, dated May 25, 2021 (“LAI Report”). The LAI Report contained LAI’s independent quantitative and qualitative analyses of all the information listed above.

IV. DISCUSSION

In response to the Second Solicitation, the Board received Applications from two developers for a total of six bids at the close of the Application window on December 10, 2020. The two Applicants are:

1. **Atlantic Shores Offshore Wind Project 1, LLC.**, a joint venture between EDF-RE Offshore Development, LLC and Shell New Energies US LLC with proposed Projects located within BOEM lease OCS-A 0499 off the coast of Atlantic City, NJ.
2. **Ocean Wind II, LLC.**, a direct 100% subsidiary of Ørsted Offshore North America, Inc. and an indirect 100% subsidiary of Ørsted A/S (Ørsted), with proposed Projects located within BOEM lease OCS-A 0498 off the coast of Atlantic City, NJ.

Projects, and/or combinations of Projects, that generally met the 1,200-2,400 MW solicitation target were reviewed pursuant to the six evaluation criteria and the additional elements allowed under N.J.S.A. 48:3-87.1(b)(2)(b). While the price and ratepayer impacts of each bid were heavily considered in accordance with the weighting criteria, the other statute-mandated criteria were considered as well. Therefore, after ensuring a bid met the minimum-eligibility requirements, the Board’s evaluation balanced the criteria as a whole; it did not solely focus on price.

By this decision and Order, the Board will address only the Application submitted by Atlantic Shores (“Atlantic Shores Application”). The other Application regarding Ocean Wind II, LLC., and its Board decision pertaining thereto, is discussed in detail in Docket Number QO21050825.

Summary of the Atlantic Shores Application.

The Atlantic Shores Application was submitted by Atlantic Shores Offshore Wind Project 1, LLC., a special purpose entity comprised of a single member, Atlantic Shores Offshore Wind LLC. Atlantic Shores is a Joint Venture between EDF-RE Offshore Development, LLC. and Shell New Energies US LLC. (“Shell New Energies”) (collectively the “Parents”). EDF-RE Offshore Development, LLC is an indirect 100% subsidiary of EDF Renewables Inc., a 100% subsidiary of EDF Renouvelables SA, which itself is an indirect 100% subsidiary of Électricité de France S.A. (“EDF”), a global energy company with nuclear, renewable, and other generation assets. EDF Renewables, Inc. has a strong presence in North America with ownership, O&M, and third-party O&M services. As of September 30, 2020, the Government of France owned 83.7% of EDF, institutional shareholders 12.8%, individual shareholders 2.1%, employees 1.3%, and treasury shares were under 0.1%.

Shell New Energies is an indirect 100% subsidiary of Royal Dutch Shell (“Shell”), a global oil & gas exploration, development, production, refining, and marketing company with a growing portfolio of renewable energy projects. Shell is a 50% owner in one operating OSW project and has interests in a few other OSW projects and numerous onshore wind projects. Shell’s largest shareholders are institutional investors.

Evaluation of the Atlantic Shores 1,509.6 MW Project (“Atlantic Shores Project”)

The Solicitation Guidelines require consideration of the following six evaluation criteria: 1) OREC purchase price; 2) Economic impacts; 3) Ratepayer impacts; 4) Environmental impacts; 5) Strength of guarantees for economic impacts; and 6) Likelihood of successful commercial operation. The Board has considered the Atlantic Shores Application and the entirety of the ASOW record developed during the evaluation process, with respect to these criteria.

- *OREC Purchase Price, Ratepayer Impacts, and Cost-Benefit Analysis*

The Atlantic Shores Project was one of four Projects submitted by Atlantic Shores. LAI conducted price analyses to inform the Board about how the Atlantic Shores Project compared to the other Project options submitted by Atlantic Shores as well as those of Atlantic Shores’ competitor. LAI also determined the incremental, net, and total costs borne by New Jersey ratepayers for the Projects proposed by Applicants. Cost and price analysis were conducted using the following values:

1. *First Year OREC Price:* The All-In OREC Purchase Price in nominal \$/OREC⁴⁰ that will be applicable during the First Energy Year of the 20-year OREC term. An Energy Year is the 12-month period from June 1 through May 31 and is to be numbered according to the calendar year in which it ends.

⁴⁰ Nominal dollars are unadjusted for inflation. They represent the actual or predicted amount for a transaction in a particular year, whereas “real” or “constant” dollars represent the amount adjusted for actual or predicted inflation to a reference year.

2. *Levelized OREC Purchase Price ("LOPP")*:⁴¹ The present value of OREC Purchase Price payments over the 20-year OREC term divided by the present value of the quantity of ORECs purchased over the 20-year OREC term.
3. *Levelized Net OREC Cost ("LNOC")*: The unitized (dollars per MWh) net OREC cost is the OREC Purchase Price minus the revenue credits for energy and capacity and the avoided cost of Tier 1 Renewable Energy Certificates (RECs), levelized in nominal dollars over the 20-year OREC term.
4. *Present Value of Net OREC ("PVNOC")*: The total net OREC cost over the 20-year OREC term is the OREC Purchase Price multiplied by the quantity of ORECs minus the total energy and capacity revenue credits and avoid cost of Tier 1 RECs, on a present value basis.

The Atlantic Shores Project offers a first year OREC price of \$86.62/MWh⁴² and LOPP of \$106.18/MWh.⁴³ Atlantic Shores included a 2.5 percent annual escalator in its OREC Purchase Price schedule. The LNOC is \$58.81/MWh.⁴⁴ The LNOC adjusts the levelized OREC purchase price by including estimates for the revenue credits to be returned to ratepayers. The LNOC also includes an estimate of the ratepayer share of the transmission system upgrade costs discussed at the end of this section.⁴⁵

Ratepayer impacts account for revenue generated by the Project and returned to ratepayers. Ratepayer bill impact estimates are based on the PVNOC divided by the present value of the MWh load that would absorb those costs. LAI utilized Energy Information Administration ("EIA") data covering the 2019 calendar year to estimate monthly usages.⁴⁶ The Atlantic Shores' Project revenue plan identifies a strategy for producing all revenues over the 20-year OREC term, and Atlantic Shores is required to make a good faith effort to maximize all Project revenues.⁴⁷ Revenues include but are not limited to revenue from the sale of energy, capacity, renewable energy certificates (RECs) above annual allowance, ancillary services (AS), and any other product sales. Per OWEDA and N.J.A.C. 14:8-6 et seq. all revenue other than ORECs must be credited to New Jersey ratepayers. The Board acknowledges that Atlantic Shores may sell its products directly through the PJM wholesale energy, capacity, and ancillary markets as well as bilateral sales, either directly by Atlantic Shores or by its outsourcing to an unregulated marketing affiliate to effectuate bilateral sales.

Based upon the estimated LNOC, the average monthly bill ratepayer impacts for the Atlantic Shores Project as estimated by LAI are: \$2.21 for residential customers; \$20.18 for commercial customers; and \$172.25 for industrial customers (expressed in 2021 dollars).⁴⁸ These monthly bill impacts will not begin until the offshore wind facilities are operational, which is anticipated in 2027 and 2028.

⁴¹ Levelized values represent a string of values as a single value, which if it occurred in each period of a specific term would be financially equivalent on a present value basis to the original string.

⁴² OREC Pricing Schedule submitted with Atlantic Shores' BAFO.

⁴³ LAI Report at Table 6.

⁴⁴ *Id.*

⁴⁵ These OREC values include the 30% federal Investment Tax Credit

⁴⁶ LAI Report at Section 2.3. From a ratepayer perspective, a smaller project will result in lower total costs and hence a smaller rate impact. However, a larger project that benefits from economies of scale will generally have a lower LNOC, that is, a larger project will generally have a lower cost per MWh produced.

⁴⁷ Atlantic Shores Application at Section 7.

⁴⁸ LAI Report at Table 23.

Notably, the first year OREC and the levelized OREC price do not include the ratepayers' share of transmission system upgrade costs. Transmission system upgrade costs are estimates until the upgrades are completed. Upon completion of the upgrades — when the actual upgrade costs are known — the OREC will be trued-up to reflect the actual upgrade costs in accord with the methodology described in Attachment B, using the four-tiered Transmission System Upgrade Cost (“TSUC”) Sharing Parameters (“Upgrade Cost Sharing Formula”) included in ASOW’s application and shown below:⁴⁹

- Tier 1 and Tier 2: Up to \$266M – 100% paid by ASOW
- Tier 3: Between \$266M and \$533M – 30% paid by ASOW, 70% recovered through TSUC price adder
- Tier 4: Above \$533M – 100% recovered through TSUC price adder.

The cost-benefit analysis (“CBA”) represents a consolidation of the quantitative economic components of the evaluation, including OREC Purchase Price, ratepayer impact offsets (i.e., revenue returned to ratepayers), in-State economic development effects, and environmental impacts. Atlantic Shores submitted a CBA as part of its Application as required by N.J.A.C. 14:8-6.5(a)(11). LAI conducted an independent CBA to ensure that all Projects were compared on a consistent basis. Content provided by the Applicants helped inform LAI’s independent CBA. LAI’s CBA resulted in a value of 1.246, which meets the eligibility requirements of positive economic and environmental net benefits to the State.⁵⁰

- Environmental Impacts

All the proposed Projects will help New Jersey reduce Greenhouse Gas (“GHG”) emissions and other pollutants from the electric sector by displacing fossil fuel-fired generation. Avoided emissions for all Projects, on a per MWh basis, are very similar.⁵¹ The Atlantic Shores Project will result in an average of 2.97 million short tons of avoided GHG emissions annually. Direct emissions (carbon dioxide, sulfur dioxide, nitrogen oxides, and particulate emissions) resulting from development, construction, operation, and decommissioning activities associated with the Atlantic Shores Project are anticipated to be 91 thousand short tons annually, a small fraction of the total avoided emission.⁵² Thus, the net emission benefits (approximately 2.88 million short tons of avoid emissions) from the Atlantic Shore Project are substantial. Based upon the most recent data available from the U.S. Energy Information Administration these net annual avoided emissions represent approximately 14% of New Jersey’s current GHG emissions from the electricity sector.⁵³

Atlantic Shores developed a robust environmental protection plan to address environmental impacts during construction, operations, and decommissioning. Atlantic Shores commissioned field studies in its lease area, spending \$30 million on technical studies related to environmental and other aspects of its proposed Project. The ecological studies include avian and bat surveys, benthic and essential fish habitat surveys, marine mammal and sea turtle studies, and modeling

⁴⁹ OREC Pricing Schedule submitted with Atlantic Shores’ BAFO and LAI Report at Table 7.

⁵⁰ LAI Report at Section 6.

⁵¹ Id. at Table 52.

⁵² Id. at Table 51.

⁵³ U.S. Energy Information Administration: New Jersey Electricity Profile 2018 (last updated March 23, 2020)

of potential underwater noise impacts on marine organisms.⁵⁴ The studies collected data on a range of other relevant resources including coastal and marine uses, navigational safety, meteorological and oceanographic resources, terrestrial wildlife and habitats, electromagnetic fields (“EMF”), and terrestrial archeology and have completed a historical resources visual assessment.⁵⁵ Atlantic Shores met regularly with DEP to refine export cable routes and on-shore rights of way to avoid ecologically-sensitive areas. Onshore cable routes to both POI are almost entirely within public roads and utility rights of way, minimizing environmental impacts. To minimize acoustical impacts to marine mammals, sea turtles, and fisheries, Atlantic Shores plans to implement “soft starts”⁵⁶ and explore the use of various sound attenuation technologies for use during construction.⁵⁷

Atlantic Shores’ fisheries protection plan is detailed and comprehensive and includes a strong stakeholder engagement program with active commercial and recreational fisheries liaisons.⁵⁸ For instance, Atlantic Shores is in the process of negotiating a first of its kind agreement with five commercial-surf clam companies in New Jersey to: 1) “lead with science”; 2) “identify mutually acceptable independent analyst(s) or consultants with recognized expertise to support assessments of impact on commercial surf clam operations;” and 3) “take active steps to mitigate interference and conflict.”⁵⁹ Atlantic Shores’ fisheries protection plan contains design modifications to minimize disturbance impacts on fisheries and fishery habitats.⁶⁰ The proposed turbine-placement grid is oriented to accommodate the primary direction of vessel traffic within the lease area, based upon Atlantic Shores’ study of marine traffic, and its consultation with the surf clam industry and the United States Coast Guard.⁶¹ The Atlantic Shores Project is located 10.5 miles from shore at its closest point. Atlantic Shores committed to “a target cable burial depth for subsea cables of at least 6 feet below the mudline” to minimize risk of entangled fishing gear, and Atlantic Shores will compensate for any loss or damage to fishing gear or vessels that is due to entanglement on Project structures or cables.⁶² While there is fishing activity throughout the lease area, it is concentrated in the northern portion of Atlantic Shores’ lease area, predominantly north and west of where the Atlantic Shores Project will be located.⁶³ In addition, Atlantic Shores has an agreement with Rutgers University to study how fishery resources in the region may migrate over time.⁶⁴

Atlantic Shores submitted its Site Assessment Plan to BOEM in December 2019, and its Construction and Operations Plan (“COP”) for the southern portion of its lease area which includes the Atlantic Shores Project in March 2021.⁶⁵ Atlantic Shores’ proposal includes future-proofing design elements with regards to transmission, including the installation of extra conduits in the onshore portion of rights of way to its POI, which should minimize future environmental impacts.⁶⁶

⁵⁴ Atlantic Shores Application at 196-97.

⁵⁵ *Id.* at 198-99.

⁵⁶ *Id.* at 267.

⁵⁷ *Id.* at 214.

⁵⁸ Atlantic Shores Application at 283.

⁵⁹ *Id.* at 289-90; Interview Transcript at 95-99.

⁶⁰ Atlantic Shores Application at 257-58, 273-74.

⁶¹ *Id.* at 39, 274.

⁶² *Id.* at 257-58; 274.

⁶³ Atlantic Shores Application at 269-70; Table 2.

⁶⁴ *Id.* at 272.

⁶⁵ *Id.* at 299; 385; and 415.

⁶⁶ Atlantic Shores Application at 346.

The Atlantic Shores Project demonstrates a strong commitment to mitigating environmental and fisheries impacts.

- Economic Impacts

The Atlantic Shores Project offers many economic benefits, including commitments to use the foundation manufacturing facility at the Port of Paulsboro for: a) production of the project's foundations. The Atlantic Shores Project also includes commitments to marshal the project at the New Jersey Wind Port ("NJWP"), and to establish an MHI Vestas ("Vestas") nacelle assembly facility at the NJWP. In addition, the Atlantic Shores Project includes commitments to establish an Operations and Maintenance ("O&M") Facility in Atlantic City, New Jersey.

1. *EEW American Offshores Structures, Inc. ("EEW") Phase 2 Facility at the Port of Paulsboro*

ASOW plans to use a new monopile fabrication facility to be developed by EEW as Phase 2 of its facility at the Port of Paulsboro. Phase 1 is a monopile finishing facility that is expected to be completed in time to not delay the proposed schedule for the Phase 2 facility, which will be a full monopile fabrication facility.

EEW's proposal for foundation supply sent to Atlantic Shores ("EEW-ASOW LOI") provides that ASOW may not claim economic benefits in its OREC Application to the Board for development of the Phase 2 facility.⁶⁷ However, ASOW's purchase of the first batch of monopiles from the Phase 2 facility, and its early and accelerated payments, effectively supports development of the Phase 2 facility.⁶⁸ Moreover, Atlantic Shores noted its intention to negotiate with EEW for supply of monopiles beyond the limit contained in the EEW-ASOW LOI.

Economic benefits associated with the purchase of monopiles from the EEW facility are included in Atlantic Shores' list of economic benefits. The EEW-ASOW LOI includes a firm offer to supply up to 89 monopiles. However, the Atlantic Shores Project will require 111 monopiles. Atlantic Shores noted their intention to work with EEW to increase the EEW commitment of Phase 2 facility production to cover the full monopile needs of the Atlantic Shores Project. If additional supply from EEW's Phase 2 facility cannot be achieved, Atlantic Shores has contingency plans in place to purchase any unmet balance of monopiles from a European source. Regardless of where monopiles are ultimately produced, Atlantic Shores guarantees the full amount of the economic benefits associated with purchasing all monopiles from the EEW facility at the Port of Paulsboro in its total direct in-state expenditures commitment.

2. *New Jersey Wind Port ("NJWP")*

The NJWP is a transformative, hub-style project that will offer marshalling and manufacturing locations that will serve OSW projects in New Jersey and up and down the United States east coast ("East Coast"). The NJWP will be the first purpose-built wind port on the East Coast, with no vertical restrictions, and easy access to more than 50 percent of the available United States OSW lease areas. Construction is slated to begin in 2021 with a target completion of late 2023.

⁶⁷ Id. at Appendix 2.5.

⁶⁸ Id. at 169.

Atlantic Shores proposes to establish a Vestas nacelle assembly facility at the NJWP. The Vestas nacelle assembly facility would bring \$16.5-\$24 million of in-State investment for buildings and tooling, and create 50-70 direct jobs during the assembly of nacelles for the Atlantic Shores' Project.⁶⁹ The components for the module would be shipped from Vestas' global supply chain (including potential local sourcing wherever applicable), and assembled, quality checked, and tested at the site before installation in the final nacelle. The facility would be designed to manufacture 50 nacelles per year and store them on site.⁷⁰ Atlantic Shores and Vestas intend for the nacelle assembly facility to provide long-term jobs and other OSW supply chain economic benefits to New Jersey.⁷¹

The Board notes that Atlantic Shores' Application included Projects that did not include the nacelle facility. The Board is choosing this specific Atlantic Shores Project because it includes the nacelle facility, and the Board considers the nacelle facility an important aspect in the development of New Jersey's OSW industry and supply chain. The nacelle facility will bolster New Jersey's economy, make future solicitations more cost-competitive, and ensure that New Jersey is a leader in the regional OSW industry. The Board expects Atlantic Shores to do everything in its power to bring the nacelle facility to completion.

Atlantic Shores also plans to utilize the NJWP for marshalling of the Atlantic Shores Project. Atlantic Shores will spend \$35.6 million for a 2-year marshalling lease at the NJWP.⁷²

3. *O&M Facilities*

Atlantic Shores commits to establish an O&M center in Atlantic City, New Jersey. The O&M Center will provide at least 88 permanent jobs for the 30-year Project operational life.⁷³ These jobs will be in technical service, project planning, data analysis, turbine preventative maintenance and repair, cable and foundation monitoring and substation maintenance.⁷⁴ The facility will also create economic activity for a wide range of subcontractors including shipyards, spare part producers, and vessel and harbor services. Atlantic Shores expects that these jobs would be filled by New Jersey residents, with the existing local maritime and fishing industry supporting the vessel needs. The O&M center will be built using local labor on an underutilized parcel in the city.⁷⁵

In addition to economic-development activities at the Port of Paulsboro, the NJWP, and Atlantic City, New Jersey, the ASOW Project includes initiatives listed separately below in #4 through #8.

4. *South Jersey Industries Hydrogen Plant*

Atlantic Shores proposes to partner with South Jersey Industries to finance and construct a pilot hydrogen demonstration plant at its solar/LNG plant located near the Cardiff POI for the Atlantic Shores Project. The goal is to test and validate the concept of the use of hydrogen as a fuel

⁶⁹ Atlantic Shores Application at 167.

⁷⁰ Id. at Section 8.4.1.2.

⁷¹ Id. at Appendix 2-16.

⁷² Id. at Section 8.4.2.

⁷³ Id. at 167.

⁷⁴ Atlantic Shores Application at Section 14.1.

⁷⁵ Id. at Section 8.4.1.4.

source by using an electrolyzer to produce green hydrogen for blending into natural gas. Atlantic Shores commits \$16 million for a 10 MW electrolyzer.⁷⁶ Atlantic Shores is willing to advance the construction of the hydropower demonstration plant prior to the Atlantic Shores Project's Commercial Operations Date ("COD").⁷⁷

5. *Rutgers University EcoComplex*

Atlantic Shores commits \$10,000 to sponsor and lead a series of introduction to OSW seminars at the Rutgers University EcoComplex. In addition, Atlantic Shores will provide: \$1 million to sponsor 5+ minority or women business enterprise OSW companies; and \$1 million to fund the purchase and construction of OSW-specific testing equipment.⁷⁸

6. *New Jersey WIND Institute*

Atlantic Shores commits \$160,000 to serve as the Lead Sponsor for all New Jersey WIND Institute events. Additionally, Atlantic Shores commits \$10 million for workforce training and innovation activities of the New Jersey WIND Institute.⁷⁹

7. *Workforce Development Fund*

Atlantic Shores commits to establishing a workforce development fund to invest in New Jersey workforce training to build the skills and capabilities necessary for the OSW industry. Atlantic Shores commits to seed \$4 million into this fund.⁸⁰

8. *Other Initiatives.*⁸¹

- At least \$700,000 will be spent over the first ten years of the lease to establish an Education and Community Outreach Center in partnership with Stockton University in Atlantic City, New Jersey.
- \$336,000 will be spent to provide summer programming in OSW for high school students through the Rutgers University Future Scholars program, which provides college preparation and a tuition-free pathway to college for first-generation students from low-income backgrounds.
- \$320,000 will be spent to support the Boys & Girls Club of Atlantic City's science, technology, engineering, arts, and mathematics programming.
- Up to \$170,000 will be spent to support expanding vehicle electrification in Atlantic City by purchasing electric car chargers.

⁷⁶ Id. at Section 2.7.

⁷⁷ Atlantic Shores Response to CQ2 #6a.

⁷⁸ Atlantic Shores Application at Section 8.4.4.

⁷⁹ Id. at 8.4.3.

⁸⁰ Id. at Section 8.3.

⁸¹ Id. at Section 8.4.5.

- \$150,000 will be spent to expand communication and educational grants through the Barnegat Bay Partnership.
 - \$17,055 will be spent to join regional or demographic-focused chambers of commerce and host “Meet and Greet” for members.
 - \$400,000 will be spent to fund student scholarships in workforce training programs at Rowan University.
- Guarantees for Economic Impacts

Atlantic Shores commits to directly spend \$848 million dollars in the development and construction phases of the Atlantic Shores Project.⁸² Atlantic Shores guarantees 100% of the direct spend amount. Combined with estimated direct expenditures over the 30-year operational life and during decommissioning, and the indirect and induced economic benefits across all phases, the Atlantic Shores Project will inject \$1.869 billion into the New Jersey economy, as measured by its value-added or State gross domestic product impact, according to Atlantic Shores.⁸³

Atlantic Shores guarantees an annual average of 88 full-time equivalent operations jobs over the 20-year OREC term, for a total of 1,760 FTE-years.⁸⁴

Atlantic Shores proposes a two-tier compensation mechanism for any deficiencies in its verified actual economic performance:⁸⁵

1. Cover any shortfall with additional contributions to the Workforce Development Fund, up to a shortfall of \$36 million.
2. Any shortfall above \$36 million would be returned to New Jersey ratepayers “dollar for dollar” as a reduction in the OREC price. The one-time true-up OREC price discount per MWh would be calculated by dividing the remaining guarantee shortfall by the expected production of the Atlantic Shores Project over the remainder of the OREC term.

Calculation of the verified direct spend would be done by an independent consultant selected by Atlantic Shores and approved by the Board.

Atlantic Shores’ operations jobs guarantee spans the entire 20-year OREC term. An independent consultant selected by Atlantic Shores and approved by the Board will verify the direct FTE jobs every five years. Any shortfall would be made up by an additional contribution to the workforce development fund at an initial rate of \$50,000/FTE-year.⁸⁶ Atlantic Shores will escalate the \$50,000/FTE-year penalty rate, starting at COD, at a nominal annual rate of 2.5% to account for increases in worker training costs.⁸⁷

⁸² Id. at Table 806.

⁸³ Id. at Table 8-5.

⁸⁴ Id. at Table 8-7. Each FTE-year is one year of a full-time job. For example, 100 full-time construction jobs lasting 5 years would be counted as 500 FTE-years.

⁸⁵ Id. at Section 8.3.

⁸⁶ Id. at 74.

⁸⁷ Atlantic Shores Interview Transcript at 57.

- Likelihood of Successful Commercial Operation

Many factors influence the likelihood of an OSW project reaching successful commercial operation, including project design, materials, supplier agreements, transmission POIs, permitting, ownership and financing, and experience. Several components of the Atlantic Shores Project design are considered in determining the likelihood of commercial success, including the WTGs, foundations, cabling, and offshore substations.

The Atlantic Shores Project proposes to use the V236-13.6 MW turbine from Vestas, supported by monopile foundations, with a transition piece produced at the EEW facility at the Port of Paulsboro. Atlantic Shores provided a certification commitment letter from DNV-GL stating that the “aim is to complete the Type Certification Rotor Nacelle Assembly in Q3 2023.”⁸⁸ The WTG certification timeline is consistent with the Atlantic Shores Project development schedule. Atlantic Shores also submitted a letter of intent from Vestas for the provision of the WTGs to the Project.⁸⁹ The letter includes a statement that Vestas is technically and financially able to deliver all components within the targeted schedule. Atlantic Shores provided a letter of intent from EEW to provide monopile foundations for up to 1,204 MW of capacity from EEW’s facility to be located at the Port of Paulsboro.⁹⁰ Atlantic Shores expects to be able to negotiate an agreement with EEW to provide monopile foundations out of the Paulsboro Phase 2 facility for the full 1,509.6 MW. However, in the event that Atlantic Shores is not able to reach an agreement with EEW to provide monopiles for the full scope of the Atlantic Shores Project, additional monopiles may be imported from EEW’s factory in Germany or from Bladt Industries, an alternative foundation supplier.⁹¹ ASOW also provided a letter of support from Bladt Industries. The WTGs and foundations are suitable for use in the offshore environment of New Jersey.

The cabling and offshore substations proposed for the Atlantic Shores Project are standard for offshore wind farms, and were previously used in locations substantially similar to the offshore waters of New Jersey. Atlantic Shores identified LS Cable Systems America, Inc. as the supplier of the export cables, and B.V. Twentsche Kabelfabriek as the supplier of the inter-array cables. Letters of support from these suppliers that reference the targeted schedule are provided.⁹² The selected offshore substation supplier, Rosetti Marino has “extensive offshore experience in the offshore market.”⁹³

Atlantic Shores’ parent organizations, EDFR Offshore and Royal Dutch Shell, have experience in operating almost 15 GW of renewable power projects, including approximately 7 GW of offshore wind projects installed, under construction, or in development. Atlantic Shores plans to finance the Atlantic Shores Project utilizing the balance sheets of EDF and Shell, which is reasonable and achievable. Therefore, Atlantic Shores’ ability to commercialize the Atlantic Shores Project is not predicated upon the parent organizations’ ability to line up project financing. Atlantic Shores’ key personnel have significant experience in the development of offshore wind.

⁸⁸ Atlantic Shores Application, Appendix 2-17.

⁸⁹ Id. at Appendix 2-16.

⁹⁰ Id. at Appendix 2-5.

⁹¹ Atlantic Shores also provided a letter of support from Bladt Industries. Id. at Appendix 2-7.

⁹² Id. at Appendix 2-10 and 2-11.

⁹³ Atlantic Shores Application at 71.

- OSW Transmission

The Atlantic Shores Project proposes to interconnect at the Cardiff substation in Atlantic County, New Jersey, with cable landfall occurring in Atlantic City, New Jersey.

Atlantic Shores completed major milestones in the PJM interconnection queue since 2019.⁹⁴ The Atlantic Shores Project will utilize three separate PJM queue positions, each located at the Cardiff 230 kV substation.⁹⁵ Each of these queue positions completed a PJM System Impact Study, and are currently undergoing a PJM Facilities Study.⁹⁶ It will be critical to continue to monitor Atlantic Shores' progress through the PJM interconnection queue to ensure that all system upgrades reflected in the final Facilities Study Agreement can be completed by the Atlantic Shores Project Commercial Operation Date.⁹⁷ The Board expects Atlantic Shores to exercise continued due diligence throughout the PJM interconnection process to support timely execution of the Facilities Study Agreement in accord with Atlantic Shores' estimated Commercial Operation Date.

In addition to the PJM queue positions, after frequent dialogue with DEP and the New Jersey Department of Transportation, Atlantic Shores has identified and described a landfall location and route to Cardiff that can be accessed primarily by existing transportation right-of-way.⁹⁸

In parallel with the Second Solicitation, the Board has been actively pursuing potential coordinated transmission solutions for OSW through PJM's State Agreement Approach ("SAA"). The SAA allows states, after setting out public policy requirements, to seek competitive efficient solutions through PJM's Regional Transmission Expansion Planning ("RTEP") process. On November 18, 2020, the Board officially requested that PJM include New Jersey's OSW goals into the RTEP to pursue potential integrated transmission solutions through the SAA.⁹⁹ As part of that Order, the Board explained that the SAA is not intended to impact the first OSW award, nor any guidance to bidders in the Board's Second Solicitation. However, the Board reiterated the necessity for Applicants to address the Future Proofing requirements of the Second Solicitation.¹⁰⁰

Consistent with the Board's SAA Order and the Solicitation Guidelines, Atlantic Shores submitted an interconnection plan, described above, that is sufficiently robust and likely to reach commercial operation. However, depending on the outcome of the SAA process, interconnection efficiencies for the Atlantic Shores Project may exist as a result of a selected SAA project, particularly in light of the shared proposed Cardiff Point of injection. Despite the existing interconnection plan, the Board leaves open the potential for the Atlantic Shores Project to utilize newly developed SAA transmission capabilities. The Board encourages maximum utilization of shared OSW facilities, to the extent that the use of these facilities is in the best interest of New Jersey ratepayers, by delivering the Atlantic Shores Project in a lower-cost or lower-risk fashion. Because the specifics of the SAA remain in flux, the Board encourages continued discussion and negotiation between Board Staff and Atlantic Shores to determine if use of SAA transmission capability, in lieu of part or all of the Atlantic Shores Project's existing interconnection plan, is in the mutual interest of

⁹⁴ Atlantic Shores Application at 327; PJM is a regional transmission organization that coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia.

⁹⁵ LAI Report at 41.

⁹⁶ Id.

⁹⁷ See LAI Report at Table 78, 152-153

⁹⁸ LAI Report at 152.

⁹⁹ In the Matter of Offshore Wind Transmission, BPU Docket No. QO20100630 (Nov. 18, 2020).

¹⁰⁰ Id. at 8

Atlantic Shores and New Jersey ratepayers. For any deviation from the interconnection plan approved in this Order, including for use of any SAA transmission capability, a mutually acceptable revision to this Order will be required. Prior to the determination by the Board that use of SAA transmission capability is in the best interests of New Jersey ratepayers, Atlantic Shores will need to pursue its PJM transmission interconnection plan, and will be required to recognize the reasonableness of including such out-of-pocket costs in any mutually acceptable revision to this Order.

V. DECISION AND FINDINGS

The Board acknowledges that, by its award today consisting of two Projects, both here and in Docket No. QO21050825, the procurement target for this solicitation is exceeded by 258 MW. Careful consideration was given to the ratepayer impact resulting from two awards, and the Board's decision is guided by several factors in this regard. The Board chose projects that not only offer generation of clean energy to combat climate change, but also provide significant economic benefits in manufacturing and related supply chain developments through use of New Jersey ports and infrastructure, and commitments to jobs and economic growth that will be enjoyed in New Jersey for decades to come.

In addition, the diversity in OSW developers realized by the two awards will create robust competition, which will drive down the cost of future solicitations. The diversity in economic benefits, including supply chain, port utilization, and support services, will provide benefits to a broader range of New Jersey residents than any single award. Moreover, the specific economic benefits associated with the awarded Projects will further position New Jersey as a supply chain hub for all projects along the East Coast. Cementing New Jersey as an OSW hub now will allow New Jersey to guard against supply chain elements being established in other states before New Jersey gains this foothold. Establishing a robust, diverse supply chain will result in significant benefit to New Jersey's economy, and will create a significant number of well paying, green economy jobs.

The Board is especially encouraged by Atlantic Shores' commitment to use the Port of Paulsboro and the NJWP, and by the manufacturing facilities that will be established by both Projects awarded today. Utilization of New Jersey's ports and the economic benefits and jobs that will be realized through the establishment of the manufacturing facilities are key factors in the Board's decisions.

The Board is also guided by the New Jersey Offshore Wind Strategic Plan which presented models projecting the Levelized Cost of Energy ("LCOE") through all planned solicitations to meet the 7,500 MW goal. Modeling covered two scenarios: 1) a balanced scenario (balance between local economic benefits and LCOE); and 2) a low LCOE scenario (low LCOE is emphasized at the expense of local economic benefits). While the LCOE for the balanced scenario is higher for the first two rounds, this approach results in lasting supply chain economic benefits as well as the lowest LCOE by the 3rd and 4th solicitations, and similar LCOE to the "low LCOE" scenario for the final two rounds."

After a careful and thorough review of the complete record in this matter, the Board **HEREBY FINDS** that the Atlantic Shores Project meets each of the following threshold conditions:

- The filing is consistent with the New Jersey Energy Master plan, adopted pursuant to section 12 of P.L.1977, c.146 (N.J.S.A. 52:27F-14), in effect as of the date of this Order;

- The cost-benefit analysis demonstrates positive economic and environmental net benefits to the State;
- The financing mechanism is based upon the actual electrical output of the Atlantic Shores Project, fairly balances the risks and rewards of the Atlantic Shores Project between ratepayers and shareholders, and ensures that any costs of non-performance, in either the construction or operational phase of the Atlantic Shores Project, will be borne by shareholders of the Applicant; and
- The Application for the Atlantic Shores Project demonstrates financial integrity and sufficient access to capital to allow for a reasonable expectation of completion of construction of the Atlantic Shores Project.

The Board **FURTHER FINDS** that the Atlantic Shores Project meets or exceeds all of the standards for a qualified OSW facility as set for in N.J.S.A. 48:3-87.1 et seq. and N.J.A.C 14:8-6.5 et seq.

As such, upon consideration of the evaluation criteria provided in the Solicitation Guidelines and discussed in detail herein, the Board **HEREBY CONCLUDES** that the Atlantic Shores Project is in the best interest of the State of New Jersey.

The Board **HEREBY FINDS** that the Atlantic Shores Project satisfies the overarching goals of New Jersey's OSW policy in that it: 1) contributes to a stronger New Jersey economy by anchoring an OSW supply chain in New Jersey; 2) combats global climate change to protect New Jersey and its natural resources; 3) provides the most added reliability for the transmission network and transmission rate relief for ratepayers; and 4) achieves all of this at the lowest reasonable cost and risk to ratepayers.

The Board **FURTHER FINDS** that Atlantic Shores' transmission system upgrade cost sharing proposal to be reasonable and therefore provides cost-effective OREC prices to the State of New Jersey.

As such, the Board **HEREBY APPROVES** the Atlantic Shores Project as a qualified OSW facility, and **HEREBY APPROVES** the Atlantic Shores Annual OREC Price Schedule shown in Attachment A, subject to the Terms and Conditions provided in Attachment B, and thus, **HEREBY ORDERS** that the Atlantic Shores Project be deemed eligible to receive ORECs subject to the following:

1. The Atlantic Shores Annual OREC Price Schedule, shown in Attachment A, and subject to the Terms and Conditions in Attachment B, provides the fixed OREC price per MWh that Atlantic Shores may receive for ORECs in compliance with the rules at N.J.A.C.14:8-6 et. seq. Atlantic Shores' annual OREC Allowance is 6,181 gigawatt hours ("GWh") per year. The OREC price schedule is based upon a first year OREC Payment of \$86.62 per MWh (EY 2028), and a 2.5% Annual Rate of escalation which results in a fixed annual OREC price each year thereafter as shown in the Annual OREC Price Schedule Attachment A to this Order.
2. The OREC payment schedule shall begin on the COD of each phase in Energy Year 2028 as shown in the Annual OREC Price Schedule, and shall continue for each phase for a period of 20 years (240 months) ending no later than 2048, subject to all Terms &

Conditions provided in Attachment B, and any and all regulatory requirements. The total Annual OREC Allowance for Atlantic Shores shall not be subject to reduction or modification during the term of this OREC order unless otherwise agreed to by the Board and Atlantic Shores.

3. The OREC Price as bid by Atlantic Shores reflects total Project costs, including the interconnection costs and transmission system upgrade cost estimates, in accordance with the requirements established under OWEDA and at N.J.A.C 14:8-6 et seq. However, pursuant to the Solicitation Guidelines, the OREC price may be trued-up based upon the difference between the estimated and actual transmission system upgrade costs as represented by Atlantic Shores in its Application and supplemental information submissions.
4. Atlantic Shores must submit its trued-up OREC price to the Board for review and approval upon receipt of the final cost of transmission system upgrades from PJM, including the PJM final cost study and Atlantic Shores' full and complete calculation of the trued-up OREC price. The true-up of the OREC price for final transmission system upgrade cost must be in accord with all Terms and Conditions provided in Attachment B.
5. As a Qualified OSW facility, Atlantic Shores shall only be entitled to OREC payments for MWh actually delivered over the 20-year term from COD as delineated in this Board Order, and shall have no recourse against the Board, the suppliers, the EDCs, the OREC Administrator, or the ratepayers for any additional payments. Atlantic Shores may not exceed the Annual OREC Allowance of 6,181 GWh. As detailed in N.J.A.C. 14:8-6.6, any unmet OREC allowances in a given year may be carried forward for up to two years to provide a reasonable opportunity to meet Atlantic Shores Project's total production.
6. All revenues generated by the Atlantic Shores Project, including but not limited to, the Market Revenues estimated in the Application, shall be collected, managed, and returned to ratepayers in compliance with OWEDA and the rules at N.J.A.C.14:8-6.6. As required under these rules, Atlantic Shores shall take all reasonable efforts and due diligence to maximize revenues from the Atlantic Shores Project as required by N.J.A.C. 14:8-6.6(e). Atlantic Shores shall also be responsible for the collection and transfer of all Atlantic Shores Project revenues on behalf of ratepayers, and shall be bound by all additional requirements under N.J.A.C. 14:8-6.6(f).
7. Atlantic Shores' market revenue settlement procedure must maximize ratepayer interests subject to the floor mechanism linked to PJM's Real Time Market, annual BRA governing capacity prices, any applicable ancillary revenues, as well as the sale of RECs to third parties enabled by Atlantic Shores' generation output.

The Board **FURTHER ORDERS** that the Electric Distribution Companies ("EDCs") undergo the following actions pursuant to the terms of this Order:

1. Serve as payment agents, on behalf of all suppliers obligated under the Renewable Portfolio Standard rules, to facilitate the collection and transfer of monthly OREC payments from ratepayers to Atlantic Shores in compliance with the rules at N.J.A.C. 14:8-6.6(c);

2. Implement a monthly OSW surcharge on ratepayers as required by N.J.A.C. 14:8-6.6(c);
3. File a tariff with the Board, no later than 180 days prior to the first phase COD of the Atlantic Shores Project, to collect a non-bypassable OREC surcharge to be assessed as a distribution charge that will be sufficient to meet each supplier's OREC obligation. The EDCs shall implement the ratepayer surcharge based upon the Board-approved total Annual OREC allowance for the Atlantic Shores Project, multiplied by the OREC price, and expressed as a per kilowatt hour (kWh) charge to be collected from all ratepayers on behalf of the suppliers. The EDCs shall begin collecting the OREC surcharge four (4) months in advance of the first phase COD of the Atlantic Shores Project to ensure that adequate funds will be available to complete the initial OREC payment to Atlantic Shores. The surcharge shall be implemented in compliance with N.J.A.C. 14:8-6.6(c);
4. Annually file, with the Board, for recoverable charges for the administrative fees incurred as payment agent and for the OREC Administrator fees;
5. Enter into a joint contract to retain an OREC Administrator to facilitate all transactions between ratepayers, suppliers, EDCs, and OSW developers, who will be responsible for tracking and verifying all payments and obligations as described under N.J.A.C. 14:8-6.6. The contract for the OREC Administrator shall be competitively bid by the EDCs to ensure the most efficient and cost competitive price for ratepayers. In furtherance of this directive, the EDCs shall draft and submit to the Board for approval a Request for Proposal to jointly solicit an OREC Administrator no later than 280 days from the effective date of this Order. The contract shall include the Atlantic Shores Project approved in this Order; the Project approved today in Docket No. QO21050825, and the project approved in the 2019 Board Order (the "Initial Contract").¹⁰¹ The Initial Contract with the OREC Administrator shall be amended to include additional Projects approved by the Board in subsequent solicitations, or a new competitively bid contract with an OREC Administrator shall be used for projects approved by the Board in subsequent solicitations. The EDCs shall prepare an amendment to the Initial Contract, or a new Request for Proposals, and submit the document to the Board for approval. The OREC Administrator will establish a standard Participation Agreement for the EDCs and Atlantic Shores as a Qualified OSW Project. Based upon the participation of all parties, the OREC Administrator shall conduct a true-up twice per year to ensure compliance with the Renewable Portfolio Standards and as stipulated under N.J.A.C. 14:8-6.6. The OREC Administrator shall be retained under the Initial Contract no later than one year prior to the earliest COD of the Projects included in the Initial Contract; and
6. Enter into, and comply with, the Standard Participation Agreement with Atlantic Shores to be established by the OREC Administrator. The Standard Participation Agreement and any subsequent modifications shall be developed by the OREC Administrator and approved by the Board.

¹⁰¹ In the Matter of the Board of Public Utilities Offshore Wind Solicitation for 1,100 MW – Evaluation of the Offshore Wind Applications, BPU Docket No. QO18121289 (Jun. 21, 2019).

The Board **HEREBY DIRECTS** Board Staff to:

1. Establish an OSW carve-out to the Class I Renewable Portfolio Standards based upon the approved Atlantic Shores Project annual OREC allowance of 6,181 GWh within eighteen months of the date of this Order; and
2. Monitor the results and progress of any SAA transmission solution(s) to determine if utilization of any SAA transmission solution(s) by the Atlantic Shores Project will increase the benefits to ratepayers and the residents of New Jersey, and will not negatively impact Atlantic Shores. If Board Staff makes such a determination, Board Staff shall initiate discussions with Atlantic Shores regarding a potential change to the Atlantic Shores Project interconnection plan, such change being subject to modification of this Order agreed to by the Board and Atlantic Shores.

The Board **FURTHER ACKNOWLEDGES** Atlantic Shores' proposal for the distribution of guaranteed economic benefits shortfall. The Board is keenly aware of the impact to ratepayers regarding the cost associated with the benefits of OSW. As such, the Board **HEREBY ORDERS** that any shortfall in guaranteed economic benefits be distributed as follows: 10% of the shortfall shall be added to the workforce development fund as proposed by Atlantic Shores; and 90% of the shortfall shall be returned to ratepayers as a dollar-for-dollar reduction in the OREC price. The methodology for adjusting the OREC price shall be mutually agreed upon between Atlantic Shores and the Board. Additionally, the Board **HEREBY DIRECTS** Board Staff to initiate discussions with Atlantic Shores regarding the methodology for adjusting the OREC price no later than 90 days from the date of this Order. The methodology shall result in Atlantic Shores' guaranteed economic benefits shortfall being equal to the amount of Atlantic Shores' guaranteed economic benefits shortfall under the proposed shortfall distribution.

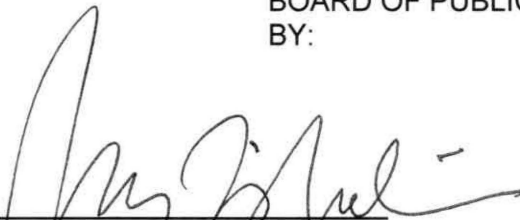
As required by OWEDA and the Board's regulations, the Board **HEREBY ORDERS** that the specific terms and conditions of the award made herein be provided in Attachment B to this Order.

With the approval of the Atlantic Shores Project and the Project provided in Docket No. QO21050825, the OSW capacity for the Second Solicitation is fulfilled, and thus, all other responses submitted under this Solicitation are **HEREBY DENIED**.

The effective date of this Order is June 30, 2021.

DATED: June 30, 2021

BOARD OF PUBLIC UTILITIES
BY:




JOSEPH L. FIORDALISO
PRESIDENT



MARY-ANNA HOLDEN
COMMISSIONER



DIANNE SOLOMON
COMMISSIONER



UPENDRA J. CHIVUKULA
COMMISSIONER



ROBERT M. GORDON
COMMISSIONER

ATTEST: 

AIDA CAMACHO-WELCH
SECRETARY

IN THE MATTER OF THE OPENING OF OFFSHORE WIND RENEWABLE ENERGY
CERTIFICATE (OREC) APPLICATION WINDOW FOR 1,200 TO 2,400 MEGAWATTS OF
OFFSHORE WIND CAPACITY IN FURTHERANCE OF EXECUTIVE ORDER NO. 8 AND
EXECUTIVE ORDER NO. 92;

and

IN THE MATTER OF THE BOARD OF PUBLIC UTILITIES OFFSHORE WIND
SOLICITATION 2 FOR 1,200 TO 2,400 MW – ATLANTIC SHORES OFFSHORE WIND
PROJECT 1, LLC

BPU DOCKET NOS. QO20080555 and QO21050824

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ATTACHMENT A – ANNUAL OREC PRICING SCHEDULE

**Annual OREC Price Schedule and Planned Output Schedule
 Atlantic Shores Project**

Nameplate Capacity (MW)		Phase 1	Phase 1A
		761.6	748
COD (month/year)		9/2027	4/2028
Energy Year, Ending May 31 of	All-in OREC Price (\$/OREC)¹⁰²	Output (months)	Output (months)
2028	\$86.62	8	1
2029	\$88.79	12	12
2030	\$91.01	12	12
2031	\$93.29	12	12
2032	\$95.62	12	12
2033	\$98.01	12	12
2034	\$100.46	12	12
2035	\$102.97	12	12
2036	\$105.54	12	12
2037	\$108.18	12	12
2038	\$110.88	12	12
2039	\$113.65	12	12
2040	\$116.49	12	12
2041	\$119.40	12	12
2042	\$122.38	12	12
2043	\$125.44	12	12
2044	\$128.58	12	12
2045	\$131.79	12	12
2046	\$135.08	12	12
2047	\$138.46	12	12
2048	\$141.92	4	11

¹⁰² The "All-in" OREC Price is prior to the true-up for PJM transmission system upgrade costs

ATTACHMENT B – ADDITIONAL TERMS AND CONDITIONS

This Board Order approving the Atlantic Shores Project is subject to all applicable federal, state and local laws and regulations, including, but not limited to, OWEDA, Executive Order No. 8, Executive Order No. 92, the Board’s Guidelines for Application Submission for Proposed Offshore Wind Facilities, and the Board’s implementing regulations at N.J.A.C. 14:8-6 et seq.

This Board Order approving the Atlantic Shores Project is also subject to the following terms and conditions:

1. Ownership Considerations

- a. EDF-RE Offshore Development, LLC and Shell New Energies US LLC shall also be subject to this Order and to these terms and conditions.
- b. In the event of any sale or other transfer to any other entity of a controlling interest in the Project or in the Project owners as described in the Atlantic Shores Application, such sale or transfer shall require prior Board approval, pursuant to N.J.A.C. 14:8-6.5(a)(1)(v) and N.J.A.C. 14:8-6.5(a)(4)(iv).

2. Annual OREC Allowance

- a. The total Annual OREC Allowance of 6,181,000 MWh per year, as approved by the Board, shall not be subject to reduction or modification during the term of this OREC Order unless otherwise agreed to by the Board and ASOW or its successor.
- b. Atlantic Shores may not exceed the annual OREC allowance of 6,181,000 MWh per year in any given year. Any unmet OREC allowances in a given year may be carried forward to the next year, as required by N.J.A.C. 14:8-6.6(b)4.

3. Project Schedule

- a. The Atlantic Shores Project shall have a COD in two phases.
 - i. Phase 1A 761.6 MW by September 2027
 - ii. Phase 1B 748 MW by April 2028¹⁰³
- b. Schedule Delays
 - i. The Board acknowledges the uncertainties associated with various aspects of the Project and the changing conditions in the marine environment. Atlantic Shores may reserve the right for the COD of either Phase to be delayed for up to, but no longer than, 6 months from each respective COD without having to obtain Board approval. Such delay will not have any effect on the overall OREC period or the total financial compensation to be received by Atlantic Shores over the life of the OREC term, other than the fact that the applicable Phase(s) will commence and end on the delayed basis (the “Permissible Delay”). Atlantic Shores shall notify the Board as soon as it is aware that any Phase will be delayed for up to 6 months.

Because of the consecutive nature of the Phases, a delay to Phase IA may result in a corresponding delay to Phase 1B. For example, an initial delay of 4 months to the Phase IA COD may result in a 4-month delay to the Phase 1B COD, but it will only be considered a single 4-month delay and not an 8-month delay. In the event of any delay, the Board expects Atlantic

¹⁰³ ASOW Application Table 1-11

Shores to make all reasonable efforts to limit any corresponding, subsequent delays.

- ii. Any delay(s), for any reason, beyond the Permissible Delay from each respective COD, would qualify as a material change to the binding OREC Pricing Schedule listed in Attachment A, and therefore be subject to Board approval. The Board retains the right to deny requests for changes to the OREC Pricing Schedule beyond the Permissible Delay.
- iii. In the event of a delay beyond the Permissible delay, Atlantic Shores shall request Board approval prior to any delay that it anticipates will exceed the Permissible Delay. In the request, Atlantic Shores shall include in sufficient detail an explanation for the delay, and Atlantic Shores' actions to minimize the delay.

Any delay expected to be greater than six months shall first exhaust the Permissible Delay. As further explanation, the Permissible Delay is not intended to be used at the discretion of Atlantic Shores at any point during the Project Schedule. The Permissible Delay shall only be used at the beginning of any total delay period.

- iv. If Atlantic Shores petitions the Board for a greater than six-month delay, Atlantic Shores may request that there be no change to the OREC Pricing Schedule, other than the fact that it will commence on a delayed basis commensurate with the actual delay and be extended for a comparable period.
- v. If the Board does not approve the request for a greater than six-month delay or grants the request with conditions, or if there is a delay as to which Atlantic Shores did not request approval from the Board, Atlantic Shores shall receive the payments dictated by the OREC Pricing Schedule starting on the actual COD of each Phase, and shall cease receiving payments six months beyond the end date of the OREC Pricing Schedule for each Phase (i.e., ASOW receives the benefits of the six-month delay, but not for any additional delays that are not approved by the Board).
- vi. If the project is delayed for any reason, the first year OREC price shall be the first year OREC price as bid. For example, the first year OREC price as bid is \$86.62/MWh for Energy Year 2028. If the project is delayed so that it commences in Energy Year 2029, the OREC paid in that first Energy Year shall be \$86.62/MWh, not the OREC price bid for Energy Year 2029.
- vii. If the COD is earlier than contemplated in this Order, there will be no change to the Pricing Schedule, other than the fact that it will commence and end on an earlier basis.

4. Revenue Settlement Process

- a. The intent of the process described below is to ensure that ratepayers are not adversely affected by any hedging activities by the entity in charge of market sales (the "Energy Manager"), such as entering into bilateral contracts or other commercial activities. If the Energy Manager engages in such activities, the process described

below provides that the credits to ratepayers will not be reduced below what the Project would have earned by liquidating the project's generation into the wholesale markets (the "Floor Price"). The process described below is not intended to prohibit prudent hedging activities of longer than a month, but is designed to make sure that voluntary commercial activities do not result in a reduction below the monthly Floor Price. ASOW shall propose a more specific methodology for calculating the Floor (should ASOW engage an Energy Manager for hedging) or other revenue plan for the Project no later than one year prior to the Phase 1 COD, taking account of the then most recent market rules and commercial practices. The methodology will be subject to review and acceptance by Board Staff.

- b. In addition to the requirements of N.J.A.C. 14:8-6.6(f), ASOW shall follow the Settlement Procedure detailed below to return project revenue to ratepayers. If ASOW's revenue management program incorporates bilateral sales of energy, capacity, and/or ancillary services, a monthly revenue index calculation, performed by the OREC Administrator, shall be calculated to determine the Floor Price. The outcome of the Floor Price calculation will serve as a floor governing the crediting of market revenues to New Jersey ratepayers. In addition, project revenues from all other sources shall also be credited in the calculation of Net OREC cost.
 - i. The Floor Price shall be calculated as energy revenues based on day-ahead energy prices at the injection node, plus BRA prices for the applicable zone, times the actual quantities of energy and capacity sold.
- c. After month twelve of the OREC term, the Floor Price for the preceding twelvemonths shall be compared with actual project revenues from these two sources. The greater of the actual and Floor Price for energy plus capacity sales shall be credited in the calculation of net OREC cost for the settlement month, in addition to project revenues from all other sources. This same settlement method shall be used for each of the remaining nineteen years of the OREC pricing schedule.

5. Changes to Key Personnel

- a. Atlantic Shores shall notify Board Staff of the departure of any key employee of the Project¹⁰⁴ within thirty (30) days of the departure. Atlantic Shores shall submit the expertise and qualifications for any new key employee, and shall submit any changes to the organizational structure of key employee positions to Board Staff within thirty (30) days of hiring a new key employee or of implementing changes to the organizational structure of key employees. Notification by email is sufficient, requesting confirmation that the notification has been received. Board Staff retains the right to respond with questions or clarifications should it need.
- b. Once satisfied that the Project's key employees and the organizational structure of key employee positions conform to the Board's rules, Board Staff will notify Atlantic Shores.
- c. In providing notification, Board Staff does not intend to limit or become deeply involved in Atlantic Shores' hiring or personnel decisions, but rather to confirm that the Project's key employees conform to the Board's rules at N.J.A.C.14:8-6.5 (a)(1)(i) and (ii).

¹⁰⁴ Atlantic Shores Application at Section 1.4

6. Environmental and Fisheries Plan Updates

- a. ASOW shall maintain and update the ASOW Project Environmental Protection Plan and Fisheries Protection Plan at key project milestones, including commencement of construction, completion of construction, and every two years thereafter, through decommissioning, or at other times as requested by NJDEP.
- b. The ASOW Project Environmental Protection Plan and Fisheries Protection Plan shall be updated to ensure New Jersey's natural resources, including fin fish and shellfish, sea turtles, marine mammals, avian species, bats and benthic populations are protected throughout the life of the project from pre-construction through decommissioning and that any impacts are being actively monitored and mitigated as required by law. Atlantic Shores shall make periodic presentations on its Environmental Protection Plan and Fisheries Protection Plan updates to the Environmental Resources Offshore Wind Working Group as requested by NJDEP. Monitoring efforts should be designed to improve the understanding of impacts of offshore wind energy development and operations on the marine environment and wildlife and shall occur throughout the life of the project at a frequency in accordance with best practices for the relevant variable or species and at a spatial scale to reasonably capture the range of conditions within the project area. ASOW shall work with Board Staff and the NJDEP to identify and implement best practices for the avoidance, minimization and mitigation of adverse impacts on wildlife including but not limited to marine mammals, sea turtles, and avian and bat species, throughout the life of this project. ASOW shall meet with Board Staff and NJDEP within 6 months of this Order to commence this process.

7. Research and Monitoring Fee

- a. As required in the Solicitation Guidelines, Atlantic Shores shall provide payment to the State of New Jersey for research initiatives and the regional monitoring of wildlife and fisheries related to the introduction of offshore wind projects in the amount of \$15,096,000 ("RMI Fee"). Payment shall be made on the following schedule: 50% of the RMI Fee within 90 days of the date of this Order, and the remainder paid in equal annual installments on the anniversary of the date of this Order over a 2-year period. The funding will be administered by the NJDEP and BPU, with stakeholder input to aid in the identification and prioritization of regional research and monitoring needs.

8. Reporting and Data Sharing Requirements

- a. ASOW shall report annually in writing to the Board and NJDEP beginning 1 year from the effective date of this Order on actions taken to ensure environmental protection, fisheries protection, mitigation of environmental and/or fishing impacts. This report shall specifically address how ASOW is enacting its plans for environmental and fisheries protection and mitigation of impacts as articulated in the Application. An appendix to the Report shall indicate the data collected in the reporting period, and shall include an accessibly-written, narrative description(s) of the dataset(s), the associated findings made based upon these data, and reference(s) to the data portal(s) where these data can be publicly accessed. This appendix shall be made public.
- b. ASOW shall report annually in writing to the Board and NJDEP beginning 1 year from the effective date of this Order on the policies and programs that may be adopted by

- the Board or NJDEP to help reduce future environmental or fisheries impacts or enhance the protection of natural resources. This report shall detail any proposed future mitigation or protection measures that could be adopted, providing a description, proposed timeline, and expected outcomes of the recommended action.
- c. ASOW shall report at least quarterly in writing to the Board beginning 3 months from the effective date of this Order, its progress in the development of the MHI Vestas nacelle assembly facility at the New Jersey Wind Port. The report shall include milestones achieved during the reporting period, milestones expected to be achieved during the next reporting period, any problems encountered and the resolution of those problems or ASOW's plan for resolving those problems, any Project schedule impacts, and any other information that ASOW believes to be material to the development of the MHI Vestas nacelle assembly facility at the New Jersey Wind Port.
 - d. ASOW shall make public through appropriate data portals, all data collected in the development of the ASOW Project from pre-construction activities through decommissioning activities. All collected information and scientific data not deemed confidential by statute or regulation shall be made publicly available. Specifically, data with particular emphasis on natural resources including, but not limited to, fin fish and shellfish, sea turtles, marine mammals, avian species, bat and benthic populations, as well as data regarding vessel strikes, avoidance, observations on habitat, and routine data collection on ocean conditions shall be shared in a manner that is in keeping with best practices for the reporting of these types of data. ASOW shall report annually to the Board and NJDEP beginning 1 year from the effective date of this Order, describing the type of data shared, and where the data is shared. Should a common database for New Jersey-related, scientific data generated in association with offshore wind development be created, ASOW shall archive all data collected with the development of the ASOW Project in that data repository.
9. Sharing of Confidential Information by the NJBPU
- a. The Board shall, from time to time, provide information deemed by Atlantic Shores to be confidential to other New Jersey state agencies in order for those agencies to better understand the Atlantic Shores Project, to track the Project's development, and for any other reason deemed appropriate by Board. Board Staff will notify Atlantic Shores prior to providing such information for Atlantic Shores' information only.
10. Documentation of Economic Benefits
- a. Atlantic Shores shall retain an independent consultant subject to approval by Board Staff, who will evaluate the actual local content spend from the effective date of this Order through the final phase COD plus one year. Atlantic Shores and the selected consultant shall develop a calculation methodology subject to approval by Board Staff. Atlantic Shores shall submit a report of the consultant's evaluation within 6 months of the final phase COD plus one year.
 - b. Atlantic Shores shall retain an independent consultant subject to approval by Board Staff, who will verify the direct jobs resulting from the Project every five years from the first phase COD through the end of the OREC period. Atlantic Shores and the selected consultant shall develop a calculation methodology subject to approval by Board Staff. Atlantic Shores shall submit a report of the consultant's evaluation within 6 months of the end of each evaluation period.

- c. Prior to the establishment of the Workforce Development Fund (“WDF”), Atlantic Shores shall submit to Board Staff a full description of the proposed structure of the WDF, the expected schedule for its formation, a full description of how the WDF will be used to support workforce development in all New Jersey communities and specifically in disadvantaged communities in New Jersey, and the expected schedule for funding and providing funds from the WDF. This submittal will be subject to review and approval by Board Staff.

11. Transmission

a. Transmission System Upgrade Costs (“TSUC”)

- i. Atlantic Shores shall notify Board Staff within 10 days and in writing of any expected changes to ASOW’s P50 and P90 estimates of TSUC that vary more than plus or minus 10% from the estimates provided in Atlantic Shores’ Application. Such notice shall include the amount of the new P50 and/or P90 estimates, the reason(s) for the variation, and all measures being taken by Atlantic Shores to mitigate increases in the TSUC.
- ii. Atlantic Shores shall notify the Board when all upgrades are completed and the final TSUC is known. With that notification, Board Staff will evaluate the amount of TSUC and determine the adder, if any, to allow appropriate recovery of TSUC. Staff may be guided by the methodology for cost-sharing of the final TSUC below:

	Transmission System Upgrade Cost Share		
	Up to \$266M	\$266M-\$533M	Above \$533M
Ratepayers’ share	0%	70%	100%
ASOW share	100%	30%	0%

The ASOW share of TSUC will be compared on a present value basis, using a discount rate of 6.5 percent, to the “Seller’s Share” portion of the OREC as submitted by the Applicant as part of its BAFO. If the present value of the “Seller’s Share” portion of the OREC as submitted is greater than the ASOW share of final TSUC based on actual interconnection costs, the “Seller’s Share” portion of the starting OREC price will be adjusted downward to match the present value of the ASOW share of final TSUC. No upward adjustments will be made. The ratepayers’ share of the final TSUC is estimated as the ratepayers’ share of the final TSUC multiplied by an annuity factor of 0.07477 and then divided by the average annual Expected Delivered Energy, as submitted in the ASOW application.

- iii. The Board is undertaking a process to determine if a coordinated transmission solution would achieve New Jersey’s offshore wind goals in the best interest of the state and the ratepayers. This process is being conducted with PJM under the PJM State Agreement Approach (“SAA Process”). As specified in the Solicitation Guidelines, the Atlantic Shores

Project is not subject to the results of the SAA Process. However, Board Staff has been instructed to determine if utilization of any SAA Process transmission solution(s) by the Atlantic Shores Project will increase the benefits to ratepayers and the residents of New Jersey, and will not negatively impact Atlantic Shores. If Board Staff makes such a determination, Board Staff shall initiate discussions with Atlantic Shores regarding a potential change to the Atlantic Shores Project interconnection plan, including the return of any interconnection cost savings to ratepayers in the form of a reduced OREC Purchase Price. Such savings would materialize under the SAA Process from the avoided TSUC borne by the Atlantic Shores Project. All changes resulting from utilization of transmission projects identified through the SAA Process shall require a modification of this Order agreed to by the Board and Atlantic Shores.

- b. ASOW will track monthly the incremental and cumulative portion of ORECs sold that applies to the ratepayers' share of the TSUC, and report these values to the OREC Administrator on a monthly basis. ASOW will inform the OREC Administrator and Board Staff in writing when the full amount of the ratepayers' share of the TSUC plus any allowed rate of return has been reached. At that time, the OREC purchase price will be adjusted appropriately for the removal of the TSUC price adder for the remainder of the 20-year OREC term.